

PCN42

PREDICTIVE VALUE OF SERIAL MEASUREMENTS OF QUALITY OF LIFE ON ALL-CAUSE MORTALITY IN PROSTATE CANCER PATIENTS: DATA FROM CAPSURE™

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OBJECTIVE: Health related quality of life (HRQOL) has been shown to be an important predictor of survival in patients with cancer. The aim of this study is to evaluate the role of serial measurements of HRQOL in predicting survival for newly diagnosed localized prostate cancer patients. **METHODS:** Data from CaPSURE, a longitudinal disease registry of men with prostate cancer, was used to identify a study population. HRQOL were measured by SF-36 and were assessed bi-annually by mailed questionnaires. All-cause mortality was reported by treating physician or next-of-kin and confirmed by death certificates. To account for changes in HRQOL over time Cox proportional hazards regression with time-dependent covariates analysis was conducted. Univariate Cox proportional hazards model was fit for each HRQOL domain to determine which were related to survival time. We then fit a multivariate model using the HRQOL domains found to be significantly related to survival time and also controlled for baseline clinical risk and age at diagnosis. Categorical variables were created for HRQOL based on the baseline distribution of the lower 10th percentile and the remainder of the patients. **RESULTS:** A total of 5610 patients met the study criteria and 322 (5.6%) patients had died. Mean survival time (defined as time from treatment to either death or last follow up) was 33.3 months. Lower scores on Physical Function, Role Physical, Role Emotional, Vitality, Mental Health, Social Function, Bodily Pain and General Health were strongly associated with death (HR between 2.9 to 5.6). In multivariate analyses Physical Function, Role Physical and General Health remained significantly associated with survival (HR = 2.0, 95% CI = 1.4–2.8; HR = 1.9, 95% CI = 1.3–2.6; HR = 1.9, 95% CI = 1.4–2.5 respectively). **CONCLUSIONS:** Lower scores on serial measurements of physical and general health domains appear to be significant predictor of survival even when controlling for known clinical factors.

PCN43

A SYSTEMATIC REVIEW OF THE EORTC QLQ-BR23: DESCRIPTIVE HEALTH RELATED QUALITY OF LIFE INSTRUMENT USED IN BREAST CANCER

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OBJECTIVE: The objective of this study was to analyze the measurement properties of the EORTC QLQ-BR23, a breast cancer specific module in measuring the health related quality of life. **METHODS:** A structured literature review was performed. Articles were searched on MEDLINE, HEALTHSTAR, Science Citation Index, Google Scholar Search and on the websites of National Cancer Institute, Centers for Disease Control and the EORTC Quality of Life group. The MeSH headings used were “Breast neoplasm, Quality of life and EORTC”. We included randomized or non-randomized studies which had used the QLQ-BR23 alone or in conjunction with other instruments. Studies had to be published in English language between the years 1990 to 2005. Reviews and methodological studies were excluded. We included articles describing the following measurement properties: reliability (internal consistency), validity, and interpretability. Both discriminative and evaluative proper-

ties were also reviewed. The definitions of measurement properties were explicitly defined *a priori* according to previous systematic reviews. **RESULTS:** Of the 68 papers cited, 21 were extracted for detailed review. Overall, the instrument exhibited high internal consistency ($p > 0.70$) in the dissimilar populations. Reliability and interpretability were poorly addressed in the cited studies. The QLQ-BR23 demonstrates face and content validity. All the domains, except systemic therapy side effects, confirmed convergent-divergent validity. Construct validity for all the domains was illustrated using the method of Known Groups comparisons, in 6 culturally diverse populations, where the QLQ-BR23 was used as a discriminating tool. Construct validity for evaluative properties was demonstrated only for the following domains: body image, breast symptoms and systemic therapy side effects. **CONCLUSION:** EORTC QLQ-BR23 is valid cross culturally and has high internal consistency. It has good discriminative properties however evaluative properties need more empirical support before we interpret data from longitudinal trials with confidence.

PCN44

IMPROVEMENT IN SENSORY PAIN RATING AFTER PALLIATIVE RADIONUCLIDE THERAPY IN PATIENTS WITH ADVANCED PROSTATE CANCER

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OBJECTIVES: This study assessed whether baseline and short-term patient-reported quality of life (QOL) differs in patients with symptomatic metastatic prostate cancer undergoing palliative management using opioids, non-steroidal anti-inflammatory agents (NSAIDs), 89Sr chloride and 153Sm-lexidronam. **METHODS:** Patients [n = 120] with metastatic prostate cancer [prostatic adenocarcinoma] who had recently [within 2 months] failed hormonal [e.g. leuprolide acetate] chemotherapy were entered in this study following informed consent. Sociodemographic characteristics and PSA were not different between patients by palliative management option. All patients had evidence of bone metastasis on bone scans. The patients varied in age between 55 to 76 years [overall mean 69.1 ± 11.3 years]. Patients were entered in the study that sought care for bone pain due to prostate cancer [ICD-9-CM 185]. Males were grouped according to primary palliative intervention: opioids (n = 40), NSAIDs (n = 40), 89Sr chloride (n = 25), 153Sm-lexidronam (n = 25). The short form of the self-administered McGill Pain Questionnaire (MPQ-SF) was used to measure QOL at baseline, 4 weeks, and 8 weeks after initiation of treatment. Clinical data were collected from patients' medical records. Statistical analyses were conducted using descriptive methods and the Student's t-test. **RESULTS:** A significant increase in the sensory pain rating was observed in the patients treated by NSAIDs (+21%) and 89Sr (+46%) whereas those treated by opioids (-27%) and 153Sm (-27%) demonstrated a significant ($p < 0.05$) decrease in this subscore. There was a longitudinal decrease in QOL over time in patients treated by NSAIDs and 89Sr as measured by the total pain rating score whereas those treated with the other agents experience improved QOL. **CONCLUSION:** This study demonstrates the improvement in QOL achieved using 153Sm-lexidronam which is comparable to that achieved by opioids during this observation interval.